Journal of Biomedical Materials Research
Author Index—Volume 51

Abraham, G. A.
—; Murray, J.; Billiar, K.; Sullivan, S. J.: Evaluation of the porcine intestinal collagen layer as a biomaterial, 442
Açil, Y.
—; Terheyden, H.; Dunsche, A.; Fleiner, B.; Jepsen, S.: Three-dimensional cultivation of human osteoblast-like cells on highly porous natural bone mineral, 703
Adamyan, A. See Horák, D., 184
Agrawal, C. M. See Phelps, J. B., 735
Alaaddinoğlu, E. E. See Özmeriç, N., 500
Albrektsson, T. See Röser, K., 280
Alcantar, N. A.
—; Aydil, E. S.; Israelachvili, J. N.: Polyethylene glycol–coated biocompatible surfaces, 343
Alexander, M. R. See Grunkemeier, J. M., 669
Anderson, J. M. See Voskerician, G., 1
—; See Wood, E. M., 147
Anseth, K. See Elisseeff, J., 164
Anseth, K. S. See Burkoth, A. K., 352
Arcos, D. See Vallet-Regí, M., 23
Asko–Seljavaara, S. See Vuola, J., 117
Asundi, A. See Kishen, A., 650
Atsumi, K. See Jin, Q.-M., 491
Awad, H. A.
—; Butler, D. L.; Harris, M. T.; Ibrahim, R. E.; Wu, Y.; Young, R. G.; Kadiyala, S.; Boivin, G. P.: *In vitro* characterization of mesenchymal stem cell-seeded collagen scaffolds for tendon repair: Effects of initial seeding density on contraction kinetics, 233
Aydil, E. S. See Alcantar, N. A., 343

Bae, Y. H. See Vernon, B., 69
Bakker, F. C. See Blokhuis, T. J., 369
Barry, M. A. See Godbey, W., 321
Becchetti, E. See Locci, P., 561
Beiler, R. J. See Burg, K. J. L., 642
Belcastro, S. See Locci, P., 561
Bellamkonda, R. V. See Eavarone, D. A., 10
—; See Dillon, G. P., 510
Bellantone, M.
—; Coleman, N. J.; Hench, L. L.: Bacteriostatic action of a novel four-component bioactive glass, 484
Bellocchio, S. See Locci, P., 561
Bengtsson, T. See Wetterö, J., 742
Berenson, M. See Wróblewski, S., 329
Billiar, K. See Abraham, G. A., 442
Bizios, R. See Webster, T. J., 475
Blokhuis, T. J.
—; Wippermann, B. W.; den Boer, F. C.; van Lingen, A.; Patka, P.; Bakker, F. C.; Haarman, H. J. T. M.: Resorbable calcium phosphate particles as a carrier material for bone marrow in an ovine segmental defect, 369
Böhling, T. See Vuola, J., 117
Boivin, G. P. See Awad, H. A., 233
Boltz–Nitulescu, G. See Rausch–Fan, X., 88
Bonfield, W. See Ton That, P., 453
—; See Ton That, P., 461
Bouler, J.-M.
—; LeGeros, R. Z.; Daculsi, G.: Biphasic calcium phosphates: Influence of three synthesis parameters on the HA/β-TCP ratio, 680
Branham, M. L. See Ross, E. A., 29
Brown, P. W. See Durucan, C., 717
—; See Durucan, C., 726
Bruce, W. See Svehla, M., 15
Brynda, E.
—; Houska, M.; Jiroušková, M.; Dyr, J. E.: Albumin and heparin multilayer coatings for blood-contacting medical devices, 249
Burdick, J. See Burkoth, A. K., 352
Burg, K. J. L.
—; Holder, W. D., Jr.; Culberson, C. R.; Beiler, R. J.; Greene, K. G.; Loebsack, A. B.; Roland, W. D.; Eiselt, P.; Mooney, D. J.; Halberstadt, C. R.: Comparative study of seeding methods for three-dimensional polymeric scaffolds, 642
Burkoth, A. K.
—; Burdick, J.; Anseth, K. S.: Surface and bulk modifications to photocrosslinked polyanhydrides to control degradation behavior, 352
Busscher, H. J. See Poelstra, K. A., 224
—; See Dijk, F., 408
Butler, D. L. See Awad, H. A., 233

Cahalan, P. T. See Zeeman, R., 541
Carey, J.
—; Small, C. F.; Pichora, D. R.: *In situ* compressive properties of the glenoid labrum, 711
Carter, K. L. See Tan, J., 694
Castner, D. G. See Grunkemeier, J. M., 669
Chellat, F.
—; Tabrizian, M.; Dumitriu, S.; Chornet, E.; Magny, P.; Rivard, C.-H.; Yahia, L.: *In vitro* and *in vivo* biocompatibility of chitosan-xanthan polyionic complex, 107
Chen, G.
—; Ushida, T.; Tateishi, T.: A biodegradable hybrid sponge nested with collagen microsponges, 273
Chen, K.-S. See Lin, F.-H., 157
Chen, Q.
—; Miyata, N.; Kokubo, T.; Nakamura, T.: Bioactivity and mechanical properties of PDMS-modified $CaO–SiO_2–TiO_2$ hybrids prepared by sol-gel process, 605
Chornet, E. See Chellat, F., 107
Chuang, W.-H. See Lin, J.-C., 413
Chuang, W.-Y. See Wang, J.-H., 761
Chung, C. P. See Park, Y. J., 391

Journal of Biomedical Materials Research
Author Index—Volume 51

Abraham, G. A.
—; Murray, J.; Billiar, K.; Sullivan, S. J.: Evaluation of the porcine intestinal collagen layer as a biomaterial, 442
Açil, Y.
—; Terheyden, H.; Dunsche, A.; Fleiner, B.; Jepsen, S.: Three-dimensional cultivation of human osteoblast-like cells on highly porous natural bone mineral, 703
Adamyan, A. See Horák, D., 184
Agrawal, C. M. See Phelps, J. B., 735
Alaaddinoğlu, E. E. See Özmeriç, N., 500
Albrektsson, T. See Röser, K., 280
Alcantar, N. A.
—; Aydil, E. S.; Israelachvili, J. N.: Polyethylene glycol–coated biocompatible surfaces, 343
Alexander, M. R. See Grunkemeier, J. M., 669
Anderson, J. M. See Voskerician, G., 1
—; See Wood, E. M., 147
Anseth, K. See Elisseeff, J., 164
Anseth, K. S. See Burkoth, A. K., 352
Arcos, D. See Vallet-Regí, M., 23
Asko–Seljavaara, S. See Vuola, J., 117
Asundi, A. See Kishen, A., 650
Atsumi, K. See Jin, Q.-M., 491
Awad, H. A.
—; Butler, D. L.; Harris, M. T.; Ibrahim, R. E.; Wu, Y.; Young, R. G.; Kadiyala, S.; Boivin, G. P.: *In vitro* characterization of mesenchymal stem cell-seeded collagen scaffolds for tendon repair: Effects of initial seeding density on contraction kinetics, 233
Aydil, E. S. See Alcantar, N. A., 343

Bae, Y. H. See Vernon, B., 69
Bakker, F. C. See Blokhuis, T. J., 369
Barry, M. A. See Godbey, W., 321
Becchetti, E. See Locci, P., 561
Beiler, R. J. See Burg, K. J. L., 642
Belcastro, S. See Locci, P., 561
Bellamkonda, R. V. See Eavarone, D. A., 10
—; See Dillon, G. P., 510
Bellantone, M.
—; Coleman, N. J.; Hench, L. L.: Bacteriostatic action of a novel four-component bioactive glass, 484
Bellocchio, S. See Locci, P., 561
Bengtsson, T. See Wetterö, J., 742
Berenson, M. See Wróblewski, S., 329
Billiar, K. See Abraham, G. A., 442
Bizios, R. See Webster, T. J., 475
Blokhuis, T. J.
—; Wippermann, B. W.; den Boer, F. C.; van Lingen, A.; Patka, P.; Bakker, F. C.; Haarman, H. J. T. M.: Resorbable calcium phosphate particles as a carrier material for bone marrow in an ovine segmental defect, 369
Böhling, T. See Vuola, J., 117
Boivin, G. P. See Awad, H. A., 233
Boltz–Nitulescu, G. See Rausch–Fan, X., 88
Bonfield, W. See Ton That, P., 453
—; See Ton That, P., 461
Bouler, J.-M.
—; LeGeros, R. Z.; Daculsi, G.: Biphasic calcium phosphates: Influence of three synthesis parameters on the HA/β-TCP ratio, 680
Branham, M. L. See Ross, E. A., 29
Brown, P. W. See Durucan, C., 717
—; See Durucan, C., 726
Bruce, W. See Svehla, M., 15
Brynda, E.
—; Houska, M.; Jiroušková, M.; Dyr, J. E.: Albumin and heparin multilayer coatings for blood-contacting medical devices, 249
Burdick, J. See Burkoth, A. K., 352
Burg, K. J. L.
—; Holder, W. D., Jr.; Culberson, C. R.; Beiler, R. J.; Greene, K. G.; Loebsack, A. B.; Roland, W. D.; Eiselt, P.; Mooney, D. J.; Halberstadt, C. R.: Comparative study of seeding methods for three-dimensional polymeric scaffolds, 642
Burkoth, A. K.
—; Burdick, J.; Anseth, K. S.: Surface and bulk modifications to photocrosslinked polyanhydrides to control degradation behavior, 352
Busscher, H. J. See Poelstra, K. A., 224
—; See Dijk, F., 408
Butler, D. L. See Awad, H. A., 233

Cahalan, P. T. See Zeeman, R., 541
Carey, J.
—; Small, C. F.; Pichora, D. R.: *In situ* compressive properties of the glenoid labrum, 711
Carter, K. L. See Tan, J., 694
Castner, D. G. See Grunkemeier, J. M., 669
Chellat, F.
—; Tabrizian, M.; Dumitriu, S.; Chornet, E.; Magny, P.; Rivard, C.-H.; Yahia, L.: *In vitro* and *in vivo* biocompatibility of chitosan-xanthan polyionic complex, 107
Chen, G.
—; Ushida, T.; Tateishi, T.: A biodegradable hybrid sponge nested with collagen microsponges, 273
Chen, K.-S. See Lin, F.-H., 157
Chen, Q.
—; Miyata, N.; Kokubo, T.; Nakamura, T.: Bioactivity and mechanical properties of PDMS-modified $CaO–SiO_2–TiO_2$ hybrids prepared by sol-gel process, 605
Chornet, E. See Chellat, F., 107
Chuang, W.-H. See Lin, J.-C., 413
Chuang, W.-Y. See Wang, J.-H., 761
Chung, C. P. See Park, Y. J., 391

Coleman, N. J. See Bellantone, M., 484
Colton, E. See Wood, E. M., 147
Connor, J. See Wood, E. M., 147
Craighead, H. G. See Turner, A. M. P., 430
Culberson, C. R. See Burg, K. J. L., 642
Currie, L. M. See Wood, E. M., 147

Daculsi, G. See Bouler, J.-M., 680
Damiani, F. See Locci, P., 561
Dankert, J. See Kuijpers, A. J., 136
Dauskardt, R. H. See Ohashi, K. L., 172
Davies, J. E. See Holy, C. E., 376
den Boer, F. C. See Blokhuis, T. J., 369
den Dunnen, W. F. A.
—; Meek, M. F.; Grijpma, D. W.; Robinson, P. H.; Schakenraad, J. M.: *In vivo* and *in vitro* degradation of poly[$^{50}/_{50}$ ($^{85}/_{15}{}^{L}/_{D}$)LA/ε-CL], and the implications for the use in nerve reconstruction, 575
DiCosmo, F. See DiTizio, V., 96
Dijk, F.
—; Westerhof, M.; Busscher, H. J.; van Luyn, M. J. A.; van der Mei, H. C.: *In vitro* formation of oropharyngeal biofilms on silicone rubber treated with a palladium/tin salt mixture, 408
Dijkstra, P. J. See Zeeman, R., 541
Dillon, G. P.
—; Yu, X.; Bellamkonda, R. V.: The polarity and magnitude of ambient charge influences three-dimensional neurite extension from DRGs, 510
DiTizio, V.
—; Karlgard, C.; Lilge, L.; Khoury, A. E.; Mittelman, M. W.; DiCosmo, F.: Localized drug delivery using crosslinked gelatin gels containing liposomes: Factors influencing liposome stability and drug release, 96
Donath, K. See Röser, K., 280
Doremus, R. H. See Webster, T. J., 475
Dowell, N. See Turner, A. M. P., 430
Ducheyne, P. See Lu, H. H., 80
—; See Gan, J. C., 596
Dumitriu, S. See Chellat, F., 107
Dunsche, A. See Açil, Y., 703
Durucan, C.
—; Brown, P. W.: Low temperature formation of calcium-deficient hydroxyapatite-PLA/PLGA composites, 717
—; Brown, P. W.: Calcium-deficient hydroxyapatite-PLGA composites: Mechanical and microstructural investigation, 726
Dyr, J. E. See Brynda, E., 249

Eavarone, D. A.
—; Yu, X.; Bellamkonda, R. V.: Targeted drug delivery to C6 glioma by transferrin-coupled liposomes (Student Research Award in the Undergraduate Degree Category, World Biomaterials Congress 2000, Kamuela, HI, May 15–20, 2000), 10
Eberhart, R. C. See Rangappa, N., 625
Eiselt, P. See Burg, K. J. L., 642
Elisseeff, J.
—; McIntosh, W.; Anseth, K.; Riley, S.; Ragan, P.; Langer, R.: Photoencapsulation of chondrocytes in poly(ethylene oxide)-based semi-interpenetrating networks, 164
Engbers, G. H. M. See Kuijpers, A. J., 136
Ergun, C. See Webster, T. J., 475

Feijen, J. See Kuijpers, A. J., 136
—; See Zeeman, R., 541
Fleiner, B. See Açil, Y., 703
Forster, D. See Udipi, K., 549
Franz, A. See Rausch–Fan, X., 88
Frondoza, C. G. See Lahiji, A., 586
Fukui, A. See Maeda, M., 55

Gan, J. C.
—; Ducheyne, P.; Vresilovic, E.; Shapiro, I. M.: Bioactive glass serves as a substrate for maintenance of phenotype of nucleus pulposus cells of the intervertebral disc, 596
Geißler, U.
—; Hempel, U.; Wolf, C.; Scharnweber, D.; Worch, H.; Wenzel, K.-W.: Collagen type I-coating of Ti6Al4V promotes adhesion of osteoblasts, 752
Gerlach, R. F.
—; Line, S. R. P.: Mechanisms of cell activation by metal ions: Influence of pH (Letter to the Editor), 540
Ginsel, L. A. See Walboomers, X. F., 529
Godbey, W.
—; Barry, M. A.; Saggau, P.; Wu, K. K.; Mikos, A. G.: Poly(ethylenimine)-mediated transfection: A new paradigm for gene delivery, 321
Goldberg, M. See Stanislawski, L., 469
González-Calbet, J. M. See Rangavittal, N., 660
Goodman, M. See Johnson, G., 612
Goodman, S. B. See Trindade, M. C., 360
Gornikiewicz, A. See Rausch–Fan, X., 88
Gottenbos, B. See Poelstra, K. A., 224
Grainger, D. W. See Poelstra, K. A., 224
Greene, K. G. See Burg, K. J. L., 642
Griesser, H. J. See Johnson, G., 612
Grijpma, D. W. See den Dunnen, W. F. A., 575
Grunkemeier, J. M.
—; Tsai, W. B.; Alexander, M. R.; Castner, D. G.; Horbett, T. A.: Platelet adhesion and procoagulant activity induced by contact with radiofrequency glow discharge polymers: Roles of adsorbed fibrinogen and vWF, 669
Gumargalieva, K. See Horák, D., 184
Guseinov, E. See Horák, D., 184

Haarman, H. J. T. M. See Blokhuis, T. J., 369
Haga, S. See Maeda, M., 55
Halas, N. J. See Sershen, S. R., 293
Halberstadt, C. R. See Burg, K. J. L., 642
Harris, M. T. See Awad, H. A., 233
Haytaç, C. M. See Özmeriç, N., 500
Heikkilä, J. See Peltola, T., 200
Hempel, U. See Geißler, U., 752
Hench, L. L. See Oonishi, H., 37
—; See Bellantone, M., 484
Hendriks, M. See Zeeman, R., 541
Hirvensalo, E. See Vuola, J., 117
Holder, W. D., Jr. See Burg, K. J. L., 642
Holland, N. B.
—; Marchant, R. E.: Individual plasma proteins detected on rough biomaterials by phase imaging AFM, 307
Holy, C. E.
—; Shoichet, M. S.; Davies, J. E.: Engineering three-dimensional bone tissue *in vitro* using biodegradable scaffolds: Investigating initial cell-seeding density and culture period, 376
Honda, Y. See Kunou, N., 635
Horák, D.
—; Guseinov, E.; Vishnevskii, V.; Adamyan, A.; Kokov, L.; Tsvirkun, V.; Tchjao, A.; Titova, M.; Skuba, N.; Trostenyuk, N.; Gumargalieva, K.: Targeted chemoembolization of tumors with poly(2-hydroxyethyl methacrylate) particles, 184

Horbett, T. A. See Grunkemeier, J. M., 669
Hoshino, T.
—; Muranishi, H.; Saito, K.; Notoya, K.; Makino, H.; Nagai, H.; Sohda, T.; Ogawa, Y.: Enhancement of fracture repair in rats with streptozotocin-induced diabetes by a single injection of biodegradable microcapsules containing a bone formation stimulant, TAK-778, 299
Houska, M. See Brynda, E., 249
Hubbard, G. B. See Phelps, J. B., 735
Hungerford, D. S. See Lahiji, A., 586
Hyon, S.-H. See Kunou, N., 635

Ibrahim, R. E. See Awad, H. A., 233
Ikada, Y. See Maeda, M., 55
—; See Kunou, N., 635
Inada, Y. See Maeda, M., 55
Inoue, K. See Itou, K., 569
Inoue, T. See Nakamura, M., 241
Isaacson, M. See Turner, A. M. P., 430
Ishibashi, K. See Takebe, J., 398
Ishibashi-Ueda, H. See Nakayama, Y., 520
Ishikawa, K. See Itou, K., 569
Israelachvili, J. N. See Alcantar, N. A., 343
Itoh, H. See Jin, Q.-M., 491
Itoh, S. See Takebe, J., 398
Itou, K.
—; Torii, Y.; Nishitani, Y.; Ishikawa, K.; Suzuki, K.; Inoue, K.: Effect of self-etching primers containing *N*-acryloyl aspartic acid on dentin adhesion, 569
Iwata, H. See Maeda, M., 55
Izquierdo-Barba, I.
—; Salinas, A. J.; Vallet-Regí, M.: Effect of the continuous solution exchange on the *in vitro* reactivity of a CaO-SiO_2 sol-gel glass, 191

Jansen, J. A. See Walboomers, X. F., 529
Jenkins, M. See Johnson, G., 612
Jensen–Jarolim, E. See Rausch–Fan, X., 88
Jepsen, S. See Açil, Y., 703
Jin, Q.-M.
—; Takita, H.; Kohgo, T.; Atsumi, K.; Itoh, H.; Kuboki, Y.: Effects of geometry of hydroxyapatite as a cell substratum in BMP-induced ectopic bone formation, 491
Jiroušková, M. See Brynda, E., 249
Johansson, C. B. See Röser, K., 280
Johnson, G.
—; Jenkins, M.; McLean, K. M.; Griesser, H. J.; Kwak, J.; Goodman, M.; Steele, J. G.: Peptoid-containing collagen mimetics with cell binding activity, 612
Jokinen, M. See Peltola, T., 200

Kadiyala, S. See Awad, H. A., 233
Kam, L. See Turner, A. M. P., 430
Kamimura, M. See Shinzato, S., 258
Kangasniemi, I. See Peltola, T., 200
Karlgard, C. See DiTizio, V., 96
Kawai, K.
—; Tsuchitani, Y.: Effects of resin composite components on glucosyltransferase of cariogenic bacterium, 123
Khoury, A. E. See DiTizio, V., 96
Kikuchi, A. See Kushida, A., 216
Kim, S. W. See Vernon, B., 69
Kin, S. See Oonishi, H., 37
King, T. W.
—; Patrick, C. W., Jr.: Development and *in vitro* characterization of vascular endothelial growth factor (VEGF)-loaded poly(DL-lactic-*co*-glycolic acid)/poly(ethylene glycol) microspheres using a solid encapsulation/single emulsion/solvent extraction technique, 383
Kinnunen, J. See Vuola, J., 117
Kishen, A.
—; Ramamurty, U.; Asundi, A.: Experimental studies on the nature of property gradients in the human dentine, 650
Kitamura, Y. See Shinzato, S., 258
Kobayashi, M. See Shinzato, S., 258
Kohgo, T. See Jin, Q.-M., 491
Kokov, L. See Horák, D., 184
Kokubo, T. See Shinzato, S., 258
—; See Chen, Q., 605
Konno, C. See Kushida, A., 216
Kopeček, J. See Wróblewski, S., 329
Kopečková, P. See Wróblewski, S., 329
Krijgsveld, J. See Kuijpers, A. J., 136
Ku, Y. See Park, Y. J., 391
Kuboki, Y. See Jin, Q.-M., 491
Kuijpers, A. J.
—; van Wachem, P. B.; van Luyn, M. J. A.; Plantinga, J. A.; Engbers, G. H. M.; Krijgsveld, J.; Zaat, S. A. J.; Dankert, J.; Feijen, J.: *In vivo* compatibility and degradation of crosslinked gelatin gels incorporated in knitted Dacron, 136
Kuňou, N.
—; Ogura, Y.; Honda, Y.; Hyon, S.-H.; Ikada, Y.: Biodegradable scleral implant-for controlled intraocular delivery of betamethasone phosphate, 635
Kushida, A.
—; Yamato, M.; Konno, C.; Kikuchi, A.; Sakurai, Y.; Okano, T.: Temperature-responsive culture dishes allow nonenzymatic harvest of differentiated Madin-Darby canine kidney (MDCK) cell sheets, 216
Kwak, J. See Johnson, G., 612

Lahiji, A.
—; Sohrabi, A.; Hungerford, D. S.; Frondoza, C. G.: Chitosan supports the expression of extracellular matrix proteins in human osteoblasts and chondrocytes, 586
Landa-Cánovas, A. R. See Rangavittal, N., 660
Langer, R. See Elisseeff, J., 164
Lee, J. Y. See Park, Y. J., 391
Lee, S. J. See Park, Y. J., 391
Lee, Y. M. See Park, Y. J., 391
LeGeros, R. Z. See Bouler, J.-M., 680
Lerouge, S.
—; Wertheimer, M. R.; Marchand, R.; Tabrizian, M.; Yahia, L.: Effect of gas composition on spore mortality and etching during low-pressure plasma sterilization, 128
Liao, C.-J. See Lin, F.-H., 157
Lilge, L. See DiTizio, V., 96
Lilli, C. See Locci, P., 561
Lin, C.-Y. See Lin, F.-H., 157
Lin, F.-H.
—; Liao, C.-J.; Chen, K.-S.; Sun, J.-S.; Lin, C.-Y.: Preparation of βTCP/HAP biphasic ceramics with natural bone structure by heating bovine cancellous bone with the addition of $(NH_4)_2HPO_4$, 157
Lin, J.-C.
—; Chuang, W.-H.: Synthesis, surface characterization, and platelet reactivity evaluation for the self-assembled monolayer of alkanethiol with sulfonic acid functionality, 413
Line, S. R. P. See Gerlach, R. F., 540
Locci, P.
—; Marinucci, L.; Lilli, C.; Belcastro, S.; Staffolani, N.; Bellocchio, S.; Damiani, F.; Becchetti, E.: Biocompatibility of alloys used in

orthodontics evaluated by cell culture tests, 561
Loebsack, A. B. See Burg, K. J. L., 642
Lu, H. H.
—; Pollack, S. R.; Ducheyne, P.: Temporal zeta potential variations of 45S5 bioactive glass immersed in an electrolyte solution, 80

Ma, L.
—; Sines, G.: Fatigue behavior of a pyrolytic carbon, 61
Maeda, M.
—; Fukui, A.; Nakamura, T.; Inada, Y.; Tamai, S.; Haga, S.; Tatsumi-Nagano, K.; Yamamoto, H.; Ogata, S.; Iwata, H.; Ikada, Y.: Progenitor endothelial cells on vascular grafts: an ultrastructural study, 55
Magny, P. See Chellat, F., 107
Makino, H. See Hoshino, T., 299
Maloney, W. J. See Trindade, M. C., 360
Marchand, R. See Lerouge, S., 128
Marchant, R. E. See Holland, N. B., 307
Marinucci, L. See Locci, P., 561
Matsuda, T. See Nakayama, Y., 520
Matsuura, M. See Oonishi, H., 37
McIntosh, W. See Elisseeff, J., 164
McLean, K. M. See Johnson, G., 612
Meek, M. F. See den Dunnen, W. F. A., 575
Mikos, A. G. See Godbey, W., 321
Mirenghi, L. See Ramires, P. A., 535
Mittelman, M. W. See DiTizio, V., 96
Miyata, N. See Chen, Q., 605
Mizokawa, S. See Oonishi, H., 37
Mooney, D. J. See Burg, K. J. L., 642
Morberg, P. See Svehla, M., 15
Mousa, W. F. See Shinzato, S., 258
Muranishi, H. See Hoshino, T., 299
Murray, J. See Abraham, G. A., 442

Nagai, H. See Hoshino, T., 299
Nakamura, M.
—; Inoue, T.; Shimono, M.: Immunohistochemical study of dental pulp applied with 4-META/MMA-TBB adhesive resin after pulpotomy, 241
Nakamura, T. See Maeda, M., 55
—; See Shinzato, S., 258
—; See Chen, Q., 605
Nakayama, Y.
—; Nishi, S.; Ishibashi-Ueda, H.; Matsuda, T.: Surface microarchitectural design in biomedical applications: *In vivo* analysis of tissue ingrowth in excimer laser-directed micropored scaffold for cardiovascular tissue engineering, 520
Nelson, K. D. See Rangappa, N., 625
Neo, M. See Shinzato, S., 258
Nicolardi, G. See Ramires, P. A., 535
Nishi, S. See Nakayama, Y., 520
Nishitani, Y. See Itou, K., 569
Norman, T. L. See Yeni, Y. N., 504
Notoya, K. See Hoshino, T., 299

Ogata, S. See Maeda, M., 55
Ogawa, Y. See Hoshino, T., 299
Ogura, Y. See Kunou, N., 635
Ohashi, K. L.
—; Dauskardt, R. H.: Effects of fatigue loading and PMMA precoating on the adhesion and subcritical debonding of prosthetic-PMMA interfaces, 172
Okada, J. See Takebe, J., 398
Okano, T. See Kushida, A., 216
Oonishi, H.
—; Hench, L. L.; Wilson, J.; Sugihara, F.; Tsuji, E.; Matsuura, M.; Kin, S.; Yamamoto, T.; Mizokawa, S.: Quantitative comparison of bone growth behavior in granules of Bioglass®, A-W glass-ceramic, and hydroxyapatite, 37
Ornberg, R. L. See Udipi, K., 549
Ovadia, M. See Schoenfisch, M. H., 209
Özcan, G. See Özmeriç, N., 500
Özmeriç, N.
—; Özcan, G.; Haytaç, C. M.; Alaaddinoğlu, E. E.; Sargon, M. F.; Şenel, S.: Chitosan film enriched with an antioxidant agent, taurine, in fenestration defects, 500

Palumbo, F. See Ramires, P. A., 535
Park, S. N. See Park, Y. J., 391
Park, Y. J.
—; Lee, Y. M.; Park, S. N.; Lee, J. Y.; Ku, Y.; Chung, C. P.; Lee, S. J.: Enhanced guided bone regeneration by controlled tetracycline release from poly(L-lactide) barrier membranes, 391
Patka, P. See Blokhuis, T. J., 369
Patrick, C. W., Jr. See King, T. W., 383
Pätsi, M. See Peltola, T., 200
Peltola, T.
—; Jokinen, M.; Rahiala, H.; Pätsi, M.; Heikkilä, J.; Kangasniemi, I.; Yli-Urpo, A.: Effect of aging time of sol on structure and *in vitro* calcium phosphate formation of sol-gel-derived titania films, 200
Pemberton, J. E. See Schoenfisch, M. H., 209
Pérez-Pariente, J. See Vallet-Regí, M., 23
Perianin, A. See Stanislawski, L., 469
Phelps, J. B.
—; Hubbard, G. B.; Wang, X.; Agrawal, C. M.: Microstructural heterogeneity and the fracture toughness of bone, 735
Pichora, D. R. See Carey, J., 711
Plantinga, J. A. See Kuijpers, A. J., 136
Poelstra, K. A.
—; van der Mei, H. C.; Gottenbos, B.; Grainger, D. W.; van Horn, J. R.; Busscher, H. J.: Pooled human immunoglobulins reduce adhesion of *Pseudomonas aeruginosa* in a parallel plate flow chamber, 224
Pollack, S. R. See Lu, H. H., 80

Ragan, P. See Elisseeff, J., 164
Ragel, C. V.
—; Vallet-Regí, M.: *In vitro* bioactivity and gentamicin release from glass–polymer–antibiotic composites, 424
Rahiala, H. See Peltola, T., 200
Ramamurty, U. See Kishen, A., 650
Ramires, P. A.
—; Mirenghi, L.; Romano, A. R.; Palumbo, F.; Nicolardi, G.: Plasma-treated PET surfaces improve the biocompatibility of human endothelial cells (Technical Note), 535
Rangappa, N.
—; Romero, A.; Nelson, K. D.; Eberhart, R. C.; Smith, G. M.: Laminin-coated poly(L-lactide) filaments induce robust neurite growth while providing directional orientation, 625
Rangavittal, N.
—; Landa-Cánovas, A. R.; González-Calbet, J. M.; Vallet-Regí, M.: Structural study and stability of hydroxyapatite and β-tricalcium phosphate: Two important bioceramics, 660
Rausch-Fan, X.
—; Schedle, A.; Franz, A.; Spittler, A.; Gornikiewicz, A.; Jensen-Jarolim, E.; Sperr, W.; Boltz-Nitulescu, G.:

Influence of dental amalgam and heavy metal cations on *in vitro* interleukin-1β production by human peripheral blood mononuclear cells, 88
Riley, D. See Udipi, K., 549
Riley, S. See Elisseeff, J., 164
Rivard, C.-H. See Chellat, F., 107
Robinson, P. H. See den Dunnen, W. F. A., 575
Roland, W. D. See Burg, K. J. L., 642
Romano, A. R. See Ramires, P. A., 535
Romero, A. See Rangappa, N., 625
Rondelli, G.
—; Vicentini, B.: Evaluation by electrochemical tests of the passive film stability of equiatomic Ni-Ti alloy also in presence of stress-induced martensite, 47
Röser, K.
—; Johansson, C. B.; Donath, K.; Albrektsson, T.: A new approach to demonstrate cellular activity in bone formation adjacent to implants, 280
Ross, E. A.
—; Branham, M. L.; Tebbett, I. R.: Optimization of ligand presentation for immunoadsorption using star-configured polyethylene glycols, 29
Ruddell, D. E.
—; Thompson, J. Y.; Stoner, B. R.: Mechanical properties of a dental ceramic coated by RF magnetron sputtering, 316

Saggau, P. See Godbey, W., 321
Saito, K. See Hoshino, T., 299
Sakurai, Y. See Kushida, A., 216
Salinas, A. J. See Izquierdo-Barba, I., 191
Saltzman, W. M. See Tan, J., 694
Sargon, M. F. See Özmeriç, N., 500
Savadogo, O. See Thierry, B., 685
Schakenraad, J. M. See den Dunnen, W. F. A., 575
Scharnweber, D. See Geißler, U., 752
Schedle, A. See Rausch–Fan, X., 88
Schoenfisch, M. H.
—; Ovadia, M.; Pemberton, J. E.: Covalent surface chemical modification of electrodes for cardiac pacing applications, 209
Schurman, D. J. See Trindade, M. C., 360
Şenel, S. See Özmeriç, N., 500
Sershen, S. R.
—; Westcott, S. L.; Halas, N. J.; West, J. L.: Temperature-sensitive polymer–nanoshell composites for photothermally modulated drug delivery (Young Investigator Award, World Biomaterials Congress 2000, Kamuela, HI, May 15–20, 2000), 293
Settle, S. L. See Udipi, K., 549
Shain, W. See Turner, A. M. P., 430
Shapiro, I. M. See Gan, J. C., 596
Shen, H. See Tan, J., 694
Shimono, M. See Nakamura, M., 241
Shinzato, S.
—; Kobayashi, M.; Mousa, W. F.; Kamimura, M.; Neo, M.; Kitamura, Y.; Kokubo, T.; Nakamura, T.: Bioactive polymethyl methacrylate-based bone cement: Comparison of glass beads, apatite- and wollastonite-containing glass–ceramic, and hydroxyapatite fillers on mechanical and biological properties, 258
Shoichet, M. S. See Holy, C. E., 376
Siegel, R. W. See Webster, T. J., 475
Sines, G. See Ma, L., 61
Skuba, N. See Horák, D., 184
Small, C. F. See Carey, J., 711
Smith, G. M. See Rangappa, N., 625
Smith, R. L. See Trindade, M. C., 360
Sohda, T. See Hoshino, T., 299
Soheili–Majd, E. See Stanislawski, L., 469
Sohrabi, A. See Lahiji, A., 586
Sonnabend, D. See Svehla, M., 15
Sperr, W. See Rausch–Fan, X., 88
Spittler, A. See Rausch–Fan, X., 88
Staffolani, N. See Locci, P., 561
Stanislawski, L.
—; Soheili–Majd, E.; Perianin, A.; Goldberg, M.: Dental restorative biomaterials induce glutathione depletion in cultured human gingival fibroblast: Protective effect of N-acetyl cysteine, 469
Steele, J. G. See Johnson, G., 612
Stoner, B. R. See Ruddell, D. E., 316
Sugihara, F. See Oonishi, H., 37
Sullivan, S. J. See Abraham, G. A., 442
Sun, J.-S. See Lin, F.-H., 157
Suzuki, K. See Itou, K., 569
Svehla, M.
—; Morberg, P.; Zicat, B.; Bruce, W.; Sonnabend, D.; Walsh, W. R.: Morphometric and mechanical evaluation of titanium implant integration: Comparison of five surface structures, 15

Tabrizian, M. See Chellat, F., 107
—; See Lerouge, S., 128
—; See Thierry, B., 685
Takebe, J.
—; Itoh, S.; Okada, J.; Ishibashi, K.: Anodic oxidation and hydrothermal treatment of titanium results in a surface that causes increased attachment and altered cytoskeletal morphology of rat bone marrow stromal cells *in vitro*, 398
Takita, H. See Jin, Q.-M., 491
Tamai, S. See Maeda, M., 55
Tan, J.
—; Shen, H.; Carter, K. L.; Saltzman, W. M.: Controlling human polymorphonuclear leukocytes motility using microfabrication technology, 694
Tanner, K. See Ton That, P., 453
—; See Ton That, P., 461
Tateishi, T. See Chen, G., 273
Tatsumi-Nagano, K. See Maeda, M., 55
Tchjao, A. See Horák, D., 184
Tebbett, I. R. See Ross, E. A., 29
Tengvall, P. See Wetterö, J., 742
Terheyden, H. See Açil, Y., 703
Tesk, J.
—; NIST workshop on needs for reference biomaterials, 155
Thierry, B.
—; Tabrizian, M.; Trepanier, C.; Savadogo, O.; Yahia, L.'H.: Effect of surface treatment and sterilization processes on the corrosion behavior of NiTi shape memory alloy, 685
Thompson, J. Y. See Ruddell, D. E., 316
Thurmond, K. B., III See Udipi, K., 549
Titova, M. See Horák, D., 184
Ton That, P.
—; Tanner, K. E.; Bonfield, W.: Fatigue characterization of a hydroxyapatite-reinforced polyethylene composite. I. Uniaxial fatigue, 453
—; Tanner, K. E.; Bonfield, W.: Fatigue characterization of a hydroxyapatite-reinforced polyethylene composite. II. Biaxial fatigue, 461
Torii, Y. See Itou, K., 569
Trepanier, C. See Thierry, B., 685
Trindade, M. C.
—; Schurman, D. J.; Maloney, W. J.; Goodman, S. B.; Smith, R. L.: G-protein activity requirement for polymethylmethacrylate and titanium particle–induced fibroblast interleukin-6 and monocyte chemoattractant protein-1 release *in vitro*, 360

Trostenyuk, N. See Horák, D., 184
Tsai, W. B. See Grunkemeier, J. M., 669
Tsuchitani, Y. See Kawai, K., 123
Tsuji, E. See Oonishi, H., 37
Tsvirkun, V. See Horák, D., 184
Turner, A. M. P.
—; Dowell, N.; Turner, S. W. P.; Kam, L.; Isaacson, M.; Turner, J. N.; Craighead, H. G.; Shain, W.: Attachment of astroglial cells to microfabricated pillar arrays of different geometries, 430
Turner, J. N. See Turner, A. M. P., 430
Turner, S. W. P. See Turner, A. M. P., 430

Udipi, K.
—; Ornberg, R. L.; Thurmond, K. B., II; Settle, S. L.; Forster, D.; Riley, D.: Modification of inflammatory response to implanted biomedical materials *in vivo* by surface bound superoxide dismutase mimics, 549
Ushida, T. See Chen, G., 273

Vallet-Regí, M.
—; Arcos, D.; Pérez-Pariente, J.: Evolution of porosity during *in vitro* hydroxycarbonate apatite growth in sol-gel glasses, 23
—; See Izquierdo-Barba, I., 191
—; See Ragel, C. V., 424
—; See Rangavittal, N., 660
van Horn, J. R. See Poelstra, K. A., 224
van der Mei, H. C. See Poelstra, K. A., 224
—; See Dijk, F., 408
van Lingen, A. See Blokhuis, T. J., 369
van Luyn, M. J. A. See Kuijpers, A. J., 136
—; See Dijk, F., 408
—; See Zeeman, R., 541
van Wachem, P. B. See Kuijpers, A. J., 136
—; See Zeeman, R., 541
Vernon, B.
—; Kim, S. W.; Bae, Y. H.: Thermoreversible copolymer gels for extracellular matrix, 69
Vicentini, B. See Rondelli, G., 47
Vishnevskii, V. See Horák, D., 184
Voskerician, G.
—; Anderson, J. M.; Ziats, N. P.: High molecular weight kininogen inhibition of endothelial cell function on biomaterials (Student Research Award in the Undergraduate Degree Category, World Biomaterials Congress 2000, Kamuela, HI, May 15–20, 2000), 1
Vresilovic, E. See Gan, J. C., 596
Vuola, J.
—; Böhling, T.; Kinnunen, J.; Hirvensalo, E.; Asko-Seljavaara, S.: Natural coral as bone-defect-filling material, 117

Walboomers, X. F.
—; Ginsel, L. A.; Jansen, J. A.: Early spreading events of fibroblasts on microgrooved substrates, 529
Walsh, W. R. See Svehla, M., 15
Wang, J.-H.
—; Yao, C.-H.; Chuang, W.-Y.; Young, T.-H.: Development of biodegradable polyesterurethane membranes with different surface morphologies for the culture of osteoblasts, 761
Wang, X. See Phelps, J. B., 735
Webster, T. J.
—; Ergun, C.; Doremus, R. H.; Siegel, R. W.; Bizios, R.: Specific proteins mediate enhanced osteoblast adhesion on nanophase ceramics, 475
Wenzel, K.-W. See Geißler, U., 752
Wertheimer, M. R. See Lerouge, S., 128
West, J. L. See Sershen, S. R., 293
Westcott, S. L. See Sershen, S. R., 293
Westerhof, M. See Dijk, F., 408
Wetterö, J.
—; Bengtsson, T.; Tengvall, P.: Complement activation on immunoglobulin G-coated hydrophobic surfaces enhances the release of oxygen radicals from neutrophils through an actin-dependent mechanism, 742
Wilson, J. See Oonishi, H., 37
Wippermann, B. W. See Blokhuis, T. J., 369
Wolf, C. See Geißler, U., 752
Wood, E. M.
—; Colton, E.; Yomtovian, R. A.; Currie, L. M.; Connor, J.; Anderson, J. M.: Prevention of monocyte adhesion and inflammatory cytokine production during blood platelet storage: An *in vitro* model with implications for transfusion practice (Outstanding Research by a Resident or Clinical Fellow, World Biomaterials Congress 2000, Kamuela, HI, May 15–20, 2000), 147
Worch, H. See Geißler, U., 752
Wróblewski, S.
—; Berenson, M.; Kopečková, P.; Kopeček, J.: Biorecognition of HPMA copolymer–lectin conjugates as an indicator of differentiation of cell-surface glycoproteins in development, maturation, and diseases of human and rodent gastrointestinal tissues, 329
Wu, K. K. See Godbey, W., 321
Wu, Y. See Awad, H. A., 233

Yahia, L.'H. See Chellat, F., 107
—; See Lerouge, S., 128
—; See Thierry, B., 685
Yamamoto, H. See Maeda, M., 55
Yamamoto, T. See Oonishi, H., 37
Yamato, M. See Kushida, A., 216
Yao, C.-H. See Wang, J.-H., 761
Yeni, Y. N.
—; Norman, T. L.: Calculation of porosity and osteonal cement line effects on the effective fracture toughness of cortical bone in longitudinal crack growth, 504
Yli-Urpo, A. See Peltola, T., 200
Yomtovian, R. A. See Wood, E. M., 147
Young, R. G. See Awad, H. A., 233
Young, T.-H. See Wang, J.-H., 761
Yu, X. See Eavarone, D. A., 10
—; see Dillon, G. P., 510

Zaat, S. A. J. See Kuijpers, A. J., 136
Zeeman, R.
—; Dijkstra, P. J.; van Wachem, P. B.; van Luyn, M. J. A.; Hendriks, M.; Cahalan, P. T.; Feijen, J.: The kinetics of 1,4-butanediol diglycidyl ether crosslinking of dermal sheep collagen, 541
Ziats, N. P. See Voskerician, G., 1
Zicat, B. See Svehla, M., 15

Journal of Biomedical Materials Research
Subject Index—Volume 51

α-tricalcium phosphate hydrolysis, 726
α2β1 integrin receptor, 612
A-W glass-ceramics, 37
AFM, 307
Absorbable, 642
Acrylic acid, 69
Actin cytoskeleton, 742
Adhesion, 172, 475, 694, 752
Adsorption of plasma proteins, 249
Agarose, 510
Age, 735
Aging of sol, 200
Albumin–heparin multilayer coatings, 249
Alkanethiol self-assembled monolayers, 209
Alpha-tricalcium phosphate hydrolysis, 717
Amalgam, 123
Amiloride, 147
Animal, 500
Anodic titanium oxide, 398
Antibodies, 224
Antimicrobial, 484
Antioxidant N-acetylcysteine, 469
Apatite, 23
Apatite- and wollastonite-containing glass–ceramic (AW-GC), 258
Apatite-like layer, 424
Artificial heart valve, 61
Astroglial cells, 430
Autoimmunity, 29
Autologous bone grafting, 369

β-TCP, 660
BMP, 491
Bacterial adhesion, 224
Bacteriostatic, 484
Barrett's esophagus, 329
Betamethasone phosphate, 635
Biaxial fatigue, 461
Bioactive, 258
Bioactive glass, 80, 424, 484, 596
Bioactive glasses, 23
Bioactive sol-gel glass, 191
Bioactivity, 80, 605
Bioceramic, 157
Biocompatibility, 47, 107, 209
Biocompatibility tests, 535
Biocompatible coating, 343
Biocompatible surface, 343
Biodegradable polymer, 273, 717, 726
Biodegradable scleral implant, 635
Biodegradation, 117, 136, 761
Biofilm formation, 408
45S5 Bioglass®, 37
Biohybrid artificial pancreas, 69
Biomaterials, 1
Bioresorbable polymers, 625
Biphasic calcium phosphate, 157
Biphasic calcium phosphates, 680
Blood compatibility, 413
Blood mononuclear cells, 88
Bone, 15, 376, 735
Bone composite, 726
Bone defects, 369
Bone formation, 491
Bone fracture, 299
Bone growth, 37
Bone marrow, 369
Bone marrow cell responses, 398
Bone substitutes, 117
Bone transplantation, 117

C6 glioma, 10
CD34, 55
$CaO–SiO_2$ system, 191
Calcium carbonate, 117
Calcium phosphate layer, 80
Calcium phosphates, 369
Calcium-deficient apatite, 680
Calcium-deficient hydroxyapatite, 717, 726
Cancellous bone, 605
Carbodiimide, 136
Cartilage, 164
Cell adhesion, 1
Cell attachment, 398, 529
Cell binding peptides, 612
Cell differentiation, 491
Cell migration, 1
Cell morphology, 398
Cell proliferation, 1, 561
Cellular adaptability, 391
Cement line, 504
Ceramics, 316, 475
Chemical grafting of PEG, 343
Chemoembolization, 184
Chitosan, 500, 510, 586
Chitosan-xanthan hydrogel, 107
Chondroitin sulfate, 510
Chrondrocytes, 586
Coating, 316
Colitis, 329
Collagen, 273, 541, 703
Collagen biomaterial, 442
Collagen crosslinks (pyridinoline), 703
Collagen gel, 233
Collagen mimetics, 612
Collagen type I-coating, 752
Colon-specific drug delivery, 329
Complement, 742
Composite, 453, 461
Compression, 453
Contact guidance, 529
Continuous *in vitro* studies, 191
Contractile force, 216
Contraction kinetics, 233
Controlled release, 293, 391
Coral, 117
Corneal epithelial cells, 612
Corrosion behavior, 685
Cortical bone, 504
Covalent surface modification, 209
Crack propagation, 735
Crosslinked gelatin, 96
Crosslinking, 136, 541
Cytokine/chemokine, 360
Cytokines, 107, 147

Decomposition, 660
Dental amalgam, 88
Dental biomaterials, 469
Dental materials, 316, 561
Dental pulp, 241
Dentin adhesion, 569
Device-related infection, 96
Diabetic rats, 299
Digital photoelasticity, 650
Dip coating, 200
Dorsal root ganglia, 625
Doxorubicin, 10
Drug delivery, 383

ε-CL and LLA-crystals, 575
Effective surface, 575
Elastic modulus, 711
Electrochemical test, 47
Electropolishing, 685
Eluate, 123
Embalmed glenoid labrum, 711
Endothelial cells, 1
Endothelial cells, 535
Enzyme histochemistry and immunohistology, 280
Epoxy compounds, 541
Etching, 128
Excimer laser, 520
Extracellular matrix, 586

Factorial design method, 680
Fatigue, 61, 172, 453
Fibrinogen, 307, 669
Fibroblast, 360
Fibroblasts, 469
Flk-1, 55
Flow chamber, 224
Fracture, 316
Fracture toughness, 504, 735
Functional gradients, 650

G protein, 360
Gelatin, 136
Gene delivery, 321
Gentamicin release, 424
Geometry, 491
Glass–polymer composites, 424
Glial scar, 510
Glucan, 123
Glucosyltransferase, 123
Glutathione, 469
Glycosaminoglycan accumulation, 561
Graft healing, 55
Guided tissue regeneration, 391

HCA formation, 200
HPMA copolymer–lectin–drug conjugates, 329
HREM, 660
High-molecular-weight kininogen, 1
Histones, 29
Human gingival fibroblasts, 561
Hybrid layer, 569
Hybrid sponge, 273
Hydrogel, 164, 293
Hydrogel particles, 184
Hydrogel-coated catheter ciprofloxacin, 96
Hydrothermal treatment, 398
Hydroxyapatite, 15, 37, 157, 453, 461, 491
Hydroxyapatite (HA), 258

IgG, 742
Image processor, 37
Immunoadsorption, 29
Immunoglobulin, 224
Implants, 280
In-phase, 461
Indentation testing, 711
Infection, 224
Inflammatory response, 549
Ingrowth/ongrowth, 15
Inorganic–organic hybrid, 605
in situ testing, 711
Integrin β1, 752
Interaction with platelets, 249
Interleukin-1, 88
Intervertebral disc, 596
Intraocular drug delivery, 635
in vitro, 529
in vitro bioactivity, 424
in vivo and *in vitro* degradation, 575
in vivo durability, 249
Ion release, 685

Kinetics, 541

LRM55 cells, 430
Laminin, 625
Ligands, 29
Liposomes, 96
Longitudinal crack growth, 504
Low-pressure plasma, 128
Lupus, 29

MDCK cells, 216
4-META/MMA-TBB adhesive resin, 241
mRNA, 88
Magnetron sputtering, 316
Martensite, 47
Mechanical property, 605
Mechanism of spore destruction, 128
Medical lasers, 293
Mesenchymal stem cells, 233
Metal cations, 88
Metal ions, 561
Metastases, 184
Microcapsules, 299
Microfabrication, 694
Microgrooves, 529
Microhardness, 735
Microindentation, 650
Micropore, 520
Microspheres, 383
Mineralization, 650
Monocyte adhesion, 147
Morphometry, 233
Motility, 694

N-acryloyl aspartic acid, 569
N-isopropylacrylamide, 69
NIPAAm, 293
Nanophase, 475
Nanotechnology, 293
Nerve guide, nerve regeneration, 575
Nerve regeneration, 510
Neuro-filament protein, 241
Neutrophil, 694
Neutrophil respiratory burst, 742
Ni-Ti, 47
NiTi alloy, 685
Nucleus pulposus, 596

O_2/CF_4, 128
OHAP, 660
Opsonization, 224
Orthopedic, 369
Orthopedic/dental, 475
Osteoblast, 752
Osteoblasts, 475, 586, 761
Osteoconductivity, 258
Osteon, 504
Out-of-phase, 461

PEG liposome, 10
PLGA, 635
PLLA filaments, 625
PNS regeneration, 625
PTFE, 55
p[$^{50}/_{50}$($^{85}/_{15}{}^{L}/_{D}$)LA/ε-CL], 575
Pacemaker, 209
Palladium/tin salt, 408
Particle, 360
Passive film, 47
Pendant groups, 541
Peptoids, 612
Periodontium, 500
Phagocytosis, histological studies, 107
Photografting, 352
Photopolymerization, 164, 352
Physical pattern, 694
Pillars, 430
Plasma polymers, 669
Plasma treatments, 535
Platelet adhesion, 413, 669
Platelet storage, 147
Poly(2-hydroxyethyl methacrylate), 184
Poly(D,L-lactide-*co*-glycolide), 635
Poly(DL-lactide-*co*-glycolide), 383
Poly(DL-lactic-co-glycolic acid), 273
Poly(L-lactide) membranes, 391
Poly(lactide-*co*-glycolide), 376, 717, 726
Poly-L-lysine, 321
Poly(*N*-isopropylacrylamide), 216
Polyanhydride, 352
Polyesterurethane membranes, 761
Polyethylene, 453, 461
Polyethylene glycol, 343
Polyethyleneterephthalate, 535
Polyethylenimine, 321
Polyglycolide, 642
Polylactic acid, 717
Polymer biomaterials, 307
Polymer degradation, 383
Polymethyl methacrylate (PMMA), 258

Polymethylmethacrylate, 172
Polyurethane, 549
Porcine submucosa, 442
Porosity, 23, 391
Porous, 157
Porous natural bone mineral (Bio-Oss®), 703
Porous surface, 15
Procoagulant activity, 669
Progenitor endothelial cells, 55
Proliferating cell nuclear antigen, 241
Proliferation, 642
Protein adsorption, 307
Pseudomonas, 224
Pulpotomy, 241
Push-out, 15
Pyrolytic carbon, 61

Quantification, 280

Resin component, 123
Resin composite, 123
Rietveld profile, 660

Scaffold design, 520
Scaffolds, 376
Seeding, 642
Self-assembled monolayer, 413
Self-etching primer, 569
Silica, silicon oxide, 343
Silicon, 430
Silicone rubber, 408
Silver, 484
Soft-tissue repair, 442
Sol-gel, 484
Sol-gel method, 23
Sol-gel process, 605
Static *in vitro* studies, 191
Stents, 685
Sterilization, 128
Sterilization techniques, 685
Structural stiffness, 711
Subcritical debonding, 172
Sulfonic acid, 413
Superoxide dismutase mimics, 549
Surface area, 23
Surface characterization, 413
Surface charge, 80
Surface erosion, 352
Surface properties, 761
Surface topography, 200
Sustained-release, 299
Synthesis process, 680

TAK-778, 299
TF antigen, 329
Targeted drug delivery, 10
Taurine, 500
Temperature-responsive culture surfaces, 216
Tensile bond strength, 569
Tension, 453
Tetracycline, 391
Thermal reversibility, 69
Three-dimensional osteoblast culture, 703
ThromboSol™, 147
Tissue engineering, 164, 216, 233, 273, 376, 520, 596, 642
Tissue ingrowth, 520
Tissue reaction, 136
Titania films, 200
Titanium alloy, 752
Torsion, 453
Total joint arthroplasty, 360
Total joint replacements, 172
Transfection, 321
Transferrin receptor, 10
Tumors, 184

Ultrahigh molecular weight polyethylene, 549
Uveitis, 635

VEGF, 383
vWF, 669
Vascular graft, 55
Vascular grafts, 1, 535
Voice prosthesis, 408

Weibull statistics, 61
Wells, 430
Wettability, 742
Wound healing, 500

X-ray imaging, 650

Zeta potential, 80